



Making Sense of the Nursing Education Crises in California: A Program Planning Study Prospectus

Background

Much has been written about the nursing education crises in California and the nation. In addition to the Commission's 2003 report, *Admission Policies and Attrition Rates in California Community College Nursing Programs*, several planning agencies have contributed policy papers on the subject. These include studies published by the Legislative Analyst's Office (2007), the California Board of Registered Nurses (2007), the American Nurses Association (2005), and the California Nurse Workforce Initiative Evaluation Team (2004). These studies underscored the realization that demand for licensed nurses is driven by demand for health care, which in turn is affected by a number of factors: a growing and aging population whose need for medical attention is increasing; an older registered nurse workforce, many of whom will soon retire; a complex managed care environment that limits spending on nursing care; poor working conditions, especially in acute care facilities; and state law that requires lower patient-to-nurse ratios.

Given these factors, the bottom line is essentially this: in the absence of continuous legislative and institutional intervention, the demand for services provided by vocational and registered nurses over the next ten years will greatly outpace the supply of nurses anticipated to flow from postsecondary degree programs.

A Commission Program Planning Study Prospectus

Nursing education and supply issues can be better understood and addressed within the context of statewide program planning. As shown in Appendix A, California public and independent colleges and universities offer 127 degree programs in nursing education. Collectively, these programs graduated 7,523 students during the 2005–06 academic year. We know that UC Davis will be establishing a School of Nursing in the near future, and that CSU is seeking legislation to offer the Doctor of Nursing Practice degree independent of UC.

What we don't know is:

- What is the correct mix of nursing programs and graduates given the state's labor market needs?
- How should nursing program expansion occur across higher education systems to optimize nursing care delivery?
- What specific nursing supply issues are being addressed by each higher education system?
- What institutional practices are having unintended adverse consequences on nursing supply?

These and related supply questions can be best addressed through statewide planning and coordination — a primary function of the California Postsecondary Education Commission.

The Commission's program planning responsibilities are stated in Education Codes § 66901–66903.

The Commission shall periodically conduct studies of projected manpower supply and demand in cooperation with appropriate state agencies. It shall prepare a state plan for postsecondary education that integrates the planning efforts of the public segments with other pertinent plans. It shall review proposals for by the segments for new programs, the priorities that guide them, and the degree of coordination with nearby public, independent, and private postsecondary educational institutions, and shall make recommendations regarding those plans to the Legislature and the Governor. The Commission shall have the power to require the governing boards and the institutions of public postsecondary education to submit data on plans and programs ... and on other matters pertinent to effective planning, policy development, articulation, and coordination.

Initial Program Planning Phases

The overall goal of this study project is to produce a comprehensive statewide plan for nursing education that addresses the complex issues pertaining to the nursing supply. The initial planning phases consist of: (1) modeling nursing supply and demand; (2) assessing the general and unique contributions and benefits of the four systems of higher education on nursing education; and (3) determining the cost-effectiveness of recent nursing legislation and initiatives.

Modeling Nursing Supply and Demand

Any credible assessment of nursing education begins with valid projections of nursing supply and demand. California, like all states, has developed survey methodologies for projecting occupational demand by industry. Occupational supply models are generally far less sophisticated, and, unlike demand models, they lack general consensus among policy researchers. Some supply models are based on projections of nursing graduates from American and foreign schools who are likely to satisfy all licensure requirements and practice as vocational or registered nurses. Other models recognize the need to account for the movement of individual nurses between active and inactive status. This is difficult to do because most available data do not capture the number of registered nurses with an inactive license or working in another field and later decided to work in nursing or made their license active (*California Nurse Workforce Initiative Evaluation Team, 2004*).

Commission staff will either select an existing supply model or craft an original one. The supply projections will be compared to nursing demand projections prepared by the Labor Market Information Division (LMID) of the California Employment Development Department. LMID's Occupational Employment Survey Program uses four survey panels involving 113,000 employers to provide employment projections for 800 occupations. Together with its Current Employment Survey program, LMID is able to make occupational projections by industry. Shown on the next page are demand projections for vocational nurses, registered nurses, and nursing faculty from 2006 to 2016.

Assessing the Unique Contributions and Benefits of the Four Systems of Higher Education on Nursing Education

To better understand nursing supply issues it is important to consider and evaluate the current and planned contributions of the independent and the public higher education systems on nursing education. The analyses will be crucial for developing a credible supply model and for determining the

Demand Projections for Selected Nursing Occupations, 2006 to 2016

	Vocational Nurses		Registered Nurses		Nursing Faculty	
	Demand Projection	Average Job Openings	Demand Projection	Average Job Openings	Demand Projection	Average Job Openings
2006	57,700	2,580	238,400	9,900	2,800	130
2007	58,638	2,580	243,780	9,900	2,871	130
2008	59,592	2,580	249,280	9,900	2,944	130
2009	60,561	2,580	254,906	9,900	3,019	130
2010	61,546	2,580	260,658	9,900	3,096	130
2011	62,546	2,580	266,539	9,900	3,175	130
2012	63,564	2,580	272,554	9,900	3,256	130
2013	64,597	2,580	278,704	9,900	3,339	130
2014	65,648	2,580	284,993	9,900	3,424	130
2015	66,715	2,580	291,424	9,900	3,511	130
2016	67,800	2,580	298,000	9,900	3,600	130

Source: Labor Market Information Division

appropriate mix of nursing degree programs by system and degree level to meet California's nursing needs.

A number of new programs are being planned. For example, the Commission recently concurred with the recommendation to establish the Betty Irene Moore School of Nursing at UC Davis. The school will offer an interdisciplinary approach to nursing education, leading to the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees. Given the adverse effects of the current national and state recessions, the Commission is pleased that approximately 90% of start-up costs over the next three years will be funded by a generous \$100 million grant from the Gordon and Betty Moore Foundation. The nursing school is expected to reach a steady state in academic year 2016–17, when annual enrollments will total 200 undergraduates, 200 master-level students, and 56 doctoral students.

The California State University currently offers numerous prelicensure nursing programs, including nine Master of Science programs. It is seeking legislation that would authorize it to award the Doctor of Nursing Practice. Preliminary information was recently provided to the Commission by the CSU outlining a need for the Doctor of Nursing Practice degree and how it is intended to differ from programs with similar titles offered by U.S. schools, such as the Doctor of Nursing Science, the Doctor of Science in Nursing, the Nursing Doctorate, and the Ph.D. in Nursing.

An important outcome of the Commission's planning efforts will be to provide the Governor and Legislature with an informed estimate of the number and size of new public nursing degree programs that should be established and funded over the next ten years.

Determining the Cost-Effectiveness of Recent Nursing Legislation and Initiatives

A number of initiatives and legislation have been proposed since 2002 for addressing various aspects of the nursing crises in California. The Commission will determine which ones were funded and what results have been achieved.

In 2007, the Legislative Analyst's Office proposed nursing education recommendations, shown below. The Commission will conduct independent review of these recommendations, and aggressively advocate for the adoption of these and other recommendations it considers to have policy merit and value.

- Remove fiscal disincentives for segments to rapidly expand enrollment slots
- Expand the state's nursing faculty loan forgiveness program to attract more educators
- Temporarily exempt community college nursing faculty from certain hiring restrictions
- Encouraging nursing programs to use existing facilities more efficiently
- Provide completion bonuses to community colleges that improve student outcomes
- Implement a merit-based admissions policy for community college nursing programs to address attrition concerns

Recent Studies and Legislation Addressing the Nursing Crisis

A 2003 Commission report, *Admission Policies and Attrition Rates in California Community College Nursing Programs*, recommends ways to improve community college nursing program admission practices and provides several recommendations regarding the structure of programs and the services that should be available to help students persist in their programs and graduate. The report recommends standardizing admission policies, prioritizing admissions, developing consistent unit requirements, providing additional financial aid, and better informing students about program requirements. Appendix B shows the recommendations from this report.

In 2002 Governor Gray Davis made \$60 million available over a three-year period to fund the Nurse Workforce Initiative. One aim was to develop and implement proposals to recruit, train, and retain nurses. Another aim was to meet new state hospital-to-patient staffing ratios that Governor Davis announced in January 2002. The initiative included an evaluation component and in 2004 the California Nurse Workforce Initiative Evaluation Team was formed. This team assessed which strategies were most effective in increasing the supply of nurses and effective in improving the understanding of the labor market dynamics for nurses.

Senate Bill 1309 (Scott, 2006) provides loans to graduate students who are interested in nursing teaching positions upon completion of their studies. The bill also earmarked funds to the California Community Colleges Chancellor's Office to create regional nursing resource centers that bring together schools, hospitals, and faculty to match regional clinical needs. About \$12 million is to be allocated annually to fund diagnostic assessment, pre-nursing preparation and tutoring, mentoring, and counseling support services.

A recently enacted law (Chapter 837, Statutes of 2006) seeks to reduce attrition in community college nursing programs through diagnostic assessment. Currently, about a quarter of community college nursing students fail to complete their studies and earn degrees. This law requires that students

who do not pass the assessment test must demonstrate their readiness for nursing programs by passing remedial courses or by receiving tutorial services. The bill was deemed necessary because of a lawsuit filed in 1988 by the Mexican American Legal Defense and Educational Fund against the California Community Colleges. The suit contended that assessment, placement, and prerequisite polices were disproportionately excluding Latino students from certain courses and programs, including nursing (*Legislative Analyst's Office, 2007*). In an agreement, community colleges had to adopt non-evaluative selection methods for nursing programs when there are more eligible applicants than enrollment slots, such as randomly selecting students and selecting students based on a first-come, first-served basis. Chapter 837 helps ensure readiness for nursing programs, even though individual campuses are prevented from using competitive selection criteria.

Recent state budgets have included augmentations to expand nursing enrollments at public colleges and universities. The table shows augmentations for nursing programs included in the Governor's 2006–07 budget act.

The 2009–10 budget had included \$1.1 million for UC and \$3.6 million for CSU to fund an additional 432 FTE nursing enrollments at full cost. The funds were removed during ensuing budget negotiations along with other programmatic reductions to help close the \$48 billion budget deficit facing the state. Not removed, however, is \$3.6 million to fund 3.0% enrollment growth at the community colleges, which translates to an additional 36,000 FTES. The system can use those funds to expand enrollments in nursing or any other program.

Next Steps

An advisory committee will be established to assist staff in undertaking the planning phases outlined in this agenda item. Membership will include health science professionals and representatives of the state's public and independent segments.

Major Nursing-Related Appropriations in the 2006–07 Budget Package

	Appropriations (thousand \$)
University of California	
Increase entry-level master's students by 65 FTE students	\$860
Increase postlicensure nursing students by 20 FTE students	103
California State University	
Fund startup costs to prepare for nursing program expansions in 2007–08	2,000
Increase entry-level master's students by 280 FTE students	560
Increase baccalaureate nursing students by 35 FTE students	371
California Community Colleges	
Fund new Nursing Enrollment Growth and Retention Program	12,886
Fund enrollment and equipment costs for nursing programs	4,000
Fund new Nursing Faculty Recruitment and Retention Program	2,500
California Student Aid Commission	
Authorize 100 new SNAPLE awards	*
Authorize 40 new nurses in State Facilities APLE awards	*

* State will not incur costs for forgiving loans under this program until subsequent fiscal years.

FTE — Full-Time-Equivalent student

APLE — Assumption Program of Loans for Education

SNAPLE — State Nursing APLE

Source: Legislative Analyst's Office

Appendix A — Public and Private Institutions Offering Prelicensure Nursing Programs

Associate Degree in Nursing

California Community Colleges

Allan Hancock College*
 American River College
 Antelope Valley College
 Bakersfield College
 Butte College
 Cabrillo College
 Cerritos College
 Chabot College
 Chaffey College
 City College of San Francisco
 College of Marin
 College of San Mateo
 College of the Canyons
 College of the Desert
 College of the Redwoods
 College of the Sequoias
 Contra Costa College
 Copper Mountain College
 Cuesta College
 Cypress College
 De Anza College
 East Los Angeles College
 El Camino College
 El Camino College – Compton Education Center
 Evergreen Valley College
 Fresno City College
 Gavilan College*
 Glendale Community College
 Golden West College
 Grossmont College
 Hartnell College
 Imperial Valley College
 Long Beach City College
 Los Angeles City College
 Los Angeles Harbor College
 Los Angeles Pierce College
 Los Angeles Southwest College
 Los Angeles Trade-Tech College
 Los Angeles Valley College
 Los Medanos College
 Mendocino College

Merced College
 Merritt College
 Modesto Junior College
 Monterey Peninsula College
 Moorpark College
 Mt. San Antonio College
 Mt. San Jacinto College
 Napa Valley College
 Ohlone College
 Palomar College
 Pasadena City College
 Rio Hondo College
 Riverside Community College
 Sacramento City College
 Saddleback College
 San Bernardino Valley College
 San Diego City College
 San Joaquin Delta College
 Santa Ana College
 Santa Barbara City College
 Santa Monica College
 Santa Rosa Junior College
 Shasta College
 Sierra College
 Solano Community College
 Southwestern College
 Ventura College
 Victor Valley College
 Yuba College

Private Programs

Maric College
 Mount St. Mary's College
 National University
 Pacific Union College
 San Joaquin Valley College*
 Unitek College*
 West Coast University*
 Western Career College*

Other Programs

Los Angeles County College of Nursing and Allied Health

Bachelor's Degree in Nursing

Public Programs

California State University, Bakersfield
California State University, Channel Islands
California State University, Chico
California State University, East Bay
California State University, Fresno
California State University, Fullerton
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
California State University, San Bernardino
California State University, San Marcos
California State University, Stanislaus
Humboldt State University
San Diego State University
San Francisco State University
San Jose State University
Sonoma State University
University of California, Irvine
University of California, Los Angeles

Private Programs

American University of Health Sciences
Azusa Pacific University
Biola University
California Baptist University
Dominican University of California
Loma Linda University
Mount St. Mary's College
National University
Point Loma Nazarene University
Samuel Merritt College
University of Phoenix at Modesto*
University of San Francisco

Entry-Level Master's Degree in Nursing

Public Programs

California State University, Bakersfield
California State University, Dominguez Hills
California State University, Fresno
California State University, Fullerton
California State University, Long Beach
California State University, Los Angeles
California State University, Sacramento
San Francisco State University
Sonoma State University
University of California, Los Angeles
University of California, San Francisco

Private Programs

Azusa Pacific University
Samuel Merritt College
University of San Diego
University of San Francisco
Western University of Health Sciences

Doctorate Degree in Nursing

Public Programs

California State University, Los Angeles
California State University, San Francisco

Private Programs

Azusa Pacific University
University of San Diego
University of San Francisco
Western University of Health Sciences

* Admits only licensed vocational nurses.

Appendix B — Commission Recommendations from 2003

These recommendations were in *Admission Policies and Attrition Rates in California Community College Nursing Programs*, a report adopted by the Commission in February 2003.

- Community college Registered Nursing (RN) programs should standardize admission policies, including prerequisite requirements and methods for allocating slots in oversubscribed programs, to create a clear statewide admission practice. This standardization should result from a collaborative effort of the State's nursing programs, with guidance and coordination from the California Community College Chancellor's Office.
- Community college RN programs should offer a share of their admission slots to students who achieve the highest grade-point averages in prerequisite courses. Other criteria, such as previous work experience and community service, could also be considered to prioritize admissions. This standardization should result from a collaborative effort of the State's nursing programs, with guidance and coordination from the Chancellor's Office. The Chancellor's Office should commission a study in five years to determine the success of this strategy.
- Community college RN programs should calculate the required number of units to graduate so that the average student can complete the nursing program in two years. This calculation should be established through a collaborative effort of the State's nursing programs, with guidance and coordination from the Board of Registered Nursing.
- Community college RN programs, the Community College Chancellor's Office, and the Board of Registered Nursing should provide sufficient information to the public about nursing programs so that prospective students can make informed choices about program selection.
- Community college RN programs should offer English as a Second Language, remedial support services, and tutoring programs. A component of instruction should include a course on medical terminology for limited English proficient students. The Governor and Legislature should provide nursing programs with additional funds for these support services.
- Community colleges should provide realistic and specific training to faculty and students to improve the success of students from all racial and ethnic groups. This training may include communication across cultures, strategies for identifying students who are having difficulty, counseling and mentoring techniques, and unbiased course material and tests. Ideally, such training should be extended to all community college faculty.
- The Governor and Legislature should increase the amount of need-based financial aid available to nursing students, so that fewer students have to work to support their studies.
- The Governor and Legislature should target funding increases to programs that have high completion rates and high national licensing examination (NCLEX) pass rates. Additional funds also should be targeted to programs that have significant improvement in their completion and NCLEX pass rates.